What is claimed is:

1. A powered gait orthosis comprising, a support structure, lifting means supported on said support structure for connection to a lifting harness secured to a patient, a treadmill for acting on the feet of a patient, said treadmill including opposite sides and opposite ends, drive means for driving said treadmill, a pair of spaced leg actuator assemblies disposed adjacent to said opposite sides of the treadmill, said leg actuator assemblies each including a support arm, a first depending arm supported by said support arm for pivotal movement about a first generally horizontal axis, a second depending arm supported by said first depending arm for pivotal movement about a second generally horizontal axis, depending arm drive means for moving said first and second depending arms about the pivot axes thereof, first attachment means for attaching said first depending arm to a patient's leg just above the knee of the patient's leg, second attachment means for attaching said second depending arm to a patient's leg at the ankle of the patient's leg, and control means connected to the drive means for said treadmill and the drive means for said first and second depending arms to direct the various drive means to operate in a coordinated manner to cause the legs of a patient to move in a desired gait.

2. A device as defined in claim 1 wherein at least one of said support arms is substantially horizontal and is mounted for swinging movement about a vertical axis so as to swing outwardly away from said treadmill.

3. A device as defined in claim 2 including locking means for locking said support arm in operative position.

4. A device as defined in claim 1 whrein said lifting means is movably mounted on said support structure.

5. A device as defined in claim 4 wherein said lifting means includes a parallelogram linkage.

6. A device as defined in claim 1 wherein said treadmill is interconnected to said leg actuator assemblies.

7. A device as defined in claim 1 wherein the drive means for moving said first and second depending arms of each leg actuator assembly comprises a pair of servo motors supported by the support arm of the associated leg actuator assembly.

8. A device as defined in claim 7 wherein a first one of said servo motors is interconnected by a first belt and a second belt with a first pulley drivingly connected to said second depending arm, and a second one of said servo motors is interconnected by a third belt with a second pulley drivingly connected to said first depending arm.

9. A device as defined in claim 8 wherein said first belt is interconnected with a third pulley which is drivingly connected to said first pulley by a third belt.

10. A device as defined in claim 1 wherein said first attachment means is supported on said first depending arm and is vertically adjustable relative thereto.

11. A device as defined in claim 10 wherein said first attachment means includes a support member, and including locking means for locking said support member in adjusted position relative to said first depending arm.

12. A device as defined in claim 11 wherein said first attachment means includes a first attachment cuff pivotally supported by said support member.

13. A device as defined in claim 12 wherein said first attachment cuff is horizontally adjustable relative to said support member, and including locking means for locking said first attachment cuff in adjusted position relative to said support member.

14. A device as defined in claim 1 wherein said second attachment means is supported by said second depending arm said second depending arm including a guide rod, said second attachment means including a linear bearing slidably mounted on said guide rod, and a constant force counter balance spring being connected to said linear bearing.

15. A device as defined in claim 14 including a laterally extending arm connected to said linear bearing, said second attachment means including a second attachment cuff pivotally supported by said arm.

16. A device as defined in claim 15 wherein said second attachment cuff is horizontally adjustable relative to said arm, and including locking means for locking said second attachment cuff in adjusted position relative to said arm.

17. A device as defined in claim 1 wherein said second axis defines a knee joint axis, and including a first and second sensor means supported by said first depending arm, said first sensor means sensing the knee joint home position, and said second sensor means sensing over-travel of the knee joint.

18. A device as defined in claim 1 including a control panel supported by said support structure adjacent one end of said treadmill, a pivoted linkage extending from said panel and supporting a touch screen data entry/display device.

19. A powered gait orthosis comprising, a rigid framework, lifting means mounted on said framework and adapted to be secured to a lifting harness attached to a patient, a treadmill for acting on the feet of a patient, said treadmill having opposite sides, drive means for said treadmill, a pair of spaced leg actuator assemblies disposed at said opposite sides of the treadmill, said leg actuator assemblies each including a housing, a support arm supported by said housing, adjusting means for moving said support arm vertically with respect to said housing, a first depending arm having upper and lower ends, the upper end of said first depending arm being pivotally supported by said support arm, a second depending arm having upper and lower ends, the upper end of said second depending arm being pivotally supported by the lower end of said first depending arm, first depending arm drive means for moving said first depending arm about the pivot axis thereof, second depending arm drive means for moving said second depending arm about the pivot axis thereof, first attachment means adjacent the lower end of said first depending arm for attaching said first depending arm to a patient's leg just above the knee of the patent's leg, second attachment means adjacent the lower end of said second depending arm for attaching said second depending arm to a patient's leg at the ankle of the patient's leg, and control means connected to the drive means for said treadmill and the drive means for said first and second depending arms to direct the various drive means to operate in a coordinated manner to cause the legs of a patient to move in a desired gait.

20, A device as defined in claim 19 wherein said lifting means is movably mounted on said framework.

21. A device as defined in claim 20 including rails mounted on said framework, said lifting means being slidable along said rails.

22. A device as defined in claim 21 including locking means for locking said lifting means in operative position along said rails.

23. A device as defined in claim 19 wherein said adjusting means comprises a carriage movable along guide rods supported by said housing, said carriage being connected to said support arm.

24. A device as defined in claim 23 including drive means connected with a lead screw engaging a threaded bushing carried by the carriage for moving the carriage in opposite vertical directions.

25. A device as defined in claim 19 including a pair of hand holds extending toward one another, each of said hand holds being supported by one of said housings.

26. A device as defined in claim 19 wherein said support arm is substantially horizontal and is mounted for swinging movement about a a generally vertical axis so as to swing outwardly away from said treadmill.

27. A device as defined in claim 19 wherein said treadmill is connected to each of said housings.

28. A device as defined in claim 19 wherein said first attachment means is supported by said first depending arm and includes a first attachment cuff the position of which is adjustable both horizontally and vertically with respect to said first depending arm.

29. A device as defined in claim 19 wherein said second attachment means is

supported by said second depending arm and includes a second attachment cuff the position of which is adjustable both horizontally and vertically with respect to said second depending arm.

30. A device as defined in claim 29 wherein said second attachment cuff floats vertically by being slidably mounted on a guide rod of said second depending arm.

31. The method of simulating a normal walking pattern for a patient comprising, providing a patient with harness, providing a powered lifting device, attaching the harness to the lifting device, lifting the patient and lowering the patient onto a powered treadmill, proving a powered leg actuator assembly including two leg actuator portions at one side of the treadmill, attaching the first leg actuator portion to the ankle of one leg of the patient, attaching the second leg actuator portion at a point just above the knee of said one leg of the patient, providing control means to separately and independently control the speed of movement of the treadmill, the first leg actuator portion and the second leg actuator portion to coordinate the movement of the patient's leg to cause the leg to move in a desired gait.

32. The method of claim 31 including the step of varying the height of said first and second leg actuator portions relative to the treadmill in accordance with the height of a patient.

33. The method of claim 31 including the step of proving hand holds which are grasped by the patient while the patient's leg is being moved to stabilize the patient's torso.

34. The method of claim 31 including the step of sensing over-travel of the first leg actuator portion to stop the drive means for the first leg actuator portion to prevent damage to a patient's knee.

35. The method of simulating a normal walking pattern for a patient comprising, providing a patient with harness, providing a powered lifting device, attaching the harness to the lifting device, lifting the patient and lowering the patient onto a powered treadmill, proving a pair of powered leg actuator assemblies at opposite sides of the treadmill, each of said leg actuator assemblies including two leg actuator portions, attaching the first leg actuator portion at one side of the treadmill to the ankle of one leg of the patient, attaching the second leg actuator portion at said one side of the treadmill at a point just above the knee of said one leg of the patient, attaching the second leg actuator portion at the opposite side of the treadmill to the ankle of the other leg of the patient, attaching the second leg actuator portion at the opposite side of the treadmill at a point just above the knee of the other leg of the patient, providing control means to separately and independently control the speed of movement of the treadmill, each of the first leg actuator portions and each of the second leg actuator portions to coordinate the movement of the patient's legs to cause the leg to move in a desired gait.

36. The method of claim 31 including the step of varying the height of said first and second leg actuator portions of either of or both of the leg actuator assemblies relative to the treadmill in accordance with the height of a patient.

37. The method of claim 31 including the step of providing hand holds which are grasped by the patient while the patient's legs are being moved to stabilize the patient's torso.

38. The method of claim 31 including the step of sensing over-travel of the first leg actuator portion of each of the leg actuator assemblies to stop the drive means for the associated first leg actuator portion to prevent damage to a patient's knee.